

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-3, 5, 7-10, 12 and 15 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks as set forth below.

Amendment

It is respectfully requested that the present amendment should be entered into the official file in view of the fact that the amendments to the claims automatically place the application in condition for allowance. Alternatively, if the Examiner does not agree that the application is in condition for allowance, it is requested that the present amendment should entered for the purpose of appeal. The amendments include changes to the claims to overcome specific claim language objections and thus simplify issues for appeal. The remaining changes are designed to clarify the issues and thus are also helpful on appeal.

Drawings

The Examiner objected to the drawings as not showing the memory device as claimed in claims 1, 5 and 15. Further,

Applicants previously submitted drawing requests for authorization for drawing changes dated January 28, 2002. Since Applicants have received neither an approval nor disapproval from the Examiner concerning these figures, Applicants are now submitting new sheets including these changes. At the same time, the memory device has been added to Fig. 3 as required by the Examiner. Thus, the objection to the drawings is now believed to be overcome.

Claim Objections

The Examiner objected to claim 8 due to the phrasing "always lower". Claim 15 was also objected to due to the final phrase of the claim. First, Applicants note that claim 8 has the same wording as claim 12, except for its dependency and likewise claim 5 has the same wording as claim 15 except for its dependency. Accordingly, Applicants assume that the Examiner also meant to reject claims 5 and 12 in the same manner. By way of the present amendment, Applicants have amended these four claims to overcome the claim objections. In claims 8 and 12, the word "always" has been removed. In claims 5 and 15, the final phrase "when the memory device is operated in an active state" has been removed. Accordingly, the claim objections are now believed to be overcome.

Rejection Under 35 U.S.C. 102

Claims 1-3, 5, 7-10 and 12 stand rejected under 35 U.S.C. 102 as being anticipated by Banba et al. (USP 6,128,242). This rejection is respectfully traversed.

The Examiner refers to Fig. 8 of Banba et al. as showing a charge pump part having first to nth unit charge pumps, a multi-level detector including a voltage distributor 26 for dividing the voltage into first to nth voltage levels and first to nth level detectors comparing the voltage levels with the reference level and generating first to nth level detection signals. The Examiner also points out that this figure includes an oscillator 21 and logic 30-32.

Applicants disagree with the Examiner concerning his understanding of this reference. In particular, it is pointed out that the charge pump part has four booster circuits or unit charge pumps numbered 22-25. Thus, n in this case equals 4 and not 2 as the Examiner suggests. That is, the voltage divider 26 only provides two voltage levels rather than four. The output of the multi-level detector includes only two signals rather than n signals. While one of these signals controls the booster circuit

22, the other signal controls the remaining circuits 23-25. Thus, this reference does not teach having a separate level detection signal for each of the unit charge pumps as is presently claimed.

Thus, in claim 1 the reference does not show the output of the multi-level detector as having first to nth level detection signals. Also, these signals do not selectively drive the charge pumps since all but the first are driven together and thus are not selectively driven. The voltage distributor does not have first to nth voltage levels and there are only two level detectors rather than first to nth level detectors.

Applicants have amended the claims to make these differences more clear. Claims 1, 2 and 9 have been amended to refer specifically to "first to nth" in regard to a number of elements and signals. This helps to emphasize the use of a single corresponding arrangement for each unit charge pump. Further, claims 1 and 9 have been amended to make it more clear that the level detection signals selectively drive corresponding individual unit charge pumps. This differs from the reference where one signal is used to drive the remaining charge pumps. Thus, the present claims make it clear that there is a single detection signal for each charge pump as well as one voltage level detector and one level detection signal for each. Since the Banba et al.

reference does not teach the use of separate elements for each of the pumps, Applicants submit that claims 1 and 9 define thereover.

Claims 2, 3, 5, 7, 8, 10, 12 and 15 depend from these allowable independent claims and as such are also considered to be allowable. In addition, each of the claims includes additional limitations which make them additionally allowable. In regard to claim 15, the Examiner has already indicated that the claim is allowable. Since claim 5 includes a similar limitation, it is also assumed to be allowable.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. In view of this, reconsideration of the rejections and allowance of all the claims is respectfully requested.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a two (2) month extension of time for filing a reply in connection with the present application, and the required fee of \$410.00 is attached hereto.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully

requested to contact Robert F. Gnuse (Reg. No. 27,295) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.


Respectfully submitted,

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Attachment(s): Three sheets of Corrected Formal Drawings